

08CN8824-4  
(GP2-0060-P)

### REMARKS

Claims 1-26 are pending in the present application. Claims 27 and 28 have been added, leaving Claims 1-28 for consideration upon entry of the instant amendment. Reconsideration and allowance of the claims is respectfully requested in view of the above amendments and the following remarks.

#### Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-26 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,165,309 to Burnell et al. ("Burnell") or EP0 124 916 (EP 916) in view of U.S. Patent No. 5,294,654 to Hellstern-Burnell et al. ("Hellstern-Burnell"). Applicants respectfully traverse this rejection.

Burnell generally describes a method for improving the adhesion between a conductive laminate and a substrate material comprising admixing a copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride with the polyphenylene ether resin to form a substrate. The copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride is preferably a polystyrene maleic anhydride copolymer or a rubber modified polystyrene maleic anhydride copolymer. The composition may, optionally, comprise a non-fibrous filler (column 6, line 66 to column 7, line 31), an impact modifier (column 7, line 33-59), a non-elastomeric polymer of an alkenyl aromatic compound (column 7, line 60 to column 8, line 33) which may be, inter alia, a FINACLEAR resin, and one or more of various additives (column 8, lines 34-49). The only specific total compositions taught in Burnell are the working examples (column 9, line 9 to column 10, line 8), which contain a significant amount of clay and hence are clearly opaque. Burnell does not provide any teaching with regard to amounts in a composition free of clay. Those of ordinary skill in the art will recognize that article molded from any of the working examples would be opaque, based, at least, on their clay contents.

EP 916 discloses a composition comprising 50-70 parts by weight polyphenylene ether, 0-20 parts by weight of polystyrene or saturated-rubber-modified polystyrene, 25-

08CN8824-4  
(GP2-0060-P)

45 parts by weight of a hydrogenated block copolymer, 10-20 parts by weight aromatic phosphate compound, 2-10 parts by weight mineral oil, and 0-10 parts by weight typical additives. (Page 2, lines 18-23)

Hellstern-Burnell generally describes a composition comprising a polyphenylene ether, polystyrene, glass fibers, inorganic nonfibrous agents, carbon fibers or metal-coated graphite fibers, and certain disphosphate- or polyphosphate-based flame retardants. Those of ordinary skill in the art would recognize that the required fillers would render opaque articles molded from the compositions of Hellstern-Burnell. The Examiner's comments indicate that Hellstern-Burnell has been cited for its teaching with regard to the molecular weight of the poly(arylene ether).

The Examiner has further cited, in the body of his rejection, U.S. Patent No. 5,095,049 to Maeda, U.S. Patent No. 5,213,860 to Laing, U.S. Patent No. 5,319,027 to Bott, U.S. Patent No. 5,585,242 to Bouma, and U.S. Patent No. 5,856,389 to Kostrewski. The Examiner cites these references to bolster his assertion that polystyrene-maleic anhydride copolymers and polyphenylene ether polymers "are both clear polymers." (October 28, 2003 office action, page 2)

The Examiner has asserted that "transparency is inherent in the compositions. It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to leave out the opacifying optional components". (October 28, 2003 office action, page 2) Applicants disagree.

A finding of inherency requires that the physical property necessarily flow from the composition. Applicants respectfully assert that this requirement has not been met in the instant case. Burnell requires the presence of a vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and a polyphenylene ether resin. The Examiner has cited additional references that teach that the vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and the polyphenylene ether, individually, are "clear polymers". None of the references teach that the combination of a vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and a polyphenylene ether

08CN8824-4  
(GP2-0060-P)

resin, as taught in Burnell, is transparent. Applicants note that the chemical arts are notoriously unpredictable and the area of transparent polymeric compositions is a particularly good example of this unpredictability due to the multiplicity of factors that affect transparency. Given the unpredictability of the chemical arts and the lack of an explicit teaching in the prior art regarding the transparency of the combination of vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and a polyphenylene ether resin there is insufficient evidence to support the assertion that transparency necessarily flows from the composition of Burnell without the opacifying additives.

Similarly, EP 916 requires the presence of large amounts of mineral oil. Given the unpredictability of the chemical arts and the lack of an explicit teaching in the prior art regarding the transparency of the combination of mineral oil and a polyphenylene ether resin there is insufficient evidence to support the assertion that transparency necessarily flows from the composition of EP 916 without the opacifying additives.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996). Because transparency does not necessarily flow from the compositions of Burnell or EP 916 Applicants assert that there is no reasonable expectation of success and therefore a prima facie case of obviousness has not been established.

08CN8824-4  
(GP2-0060-P)

It is believed that the foregoing remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862 maintained by Assignee.

Respectfully submitted,

CANTOR COLBURN LLP  
Applicants' Attorneys

By: Patricia S. DeSimone  
Patricia S. DeSimone  
Registration No. 48,137

Date: January 27, 2004  
Customer No.: 23413  
Telephone: (860) 286-2929